

Application No. 10/654,798
In Response to Office Action Mailed on September 17, 2008
Response Dated: January 21, 2009

AMENDMENTS

CLAIMS

Please amend Claims 11, 45-47 and add new Claim 48-56 as shown in the Listing of the Claims that follows. This Listing replaces any prior listings of claims concerning the present Application.

LISTING OF THE (AMENDED) CLAIMS

1-10. (Cancelled)

11. (Currently Amended) A method comprising:

requesting absolute time from a server by a first computing device, wherein said server uses a Network Time Protocol (NTP);

receiving said absolute time by said first computing device;~~and~~

inputting an adjustment parameter derived from said absolute time into a circuitry of said first computing device to synchronize said first computing device to a second computing device, wherein a rate at which said requesting is performed is varied based on a particular synchronization accuracy desired at said first computing device and at said second computing device; and

transmitting time sensitive data from said first computing device to said second computing device.

12. (Previously Presented) The method of Claim 11 wherein said time sensitive data comprises voice.

13. (Previously Presented) The method of Claim 12 wherein said time sensitive data comprises voice band data.

14. (Previously Presented) The method of Claim 13 wherein said voice band data comprises fax data.

15. (Previously Presented) The method of Claim 11 wherein said first and said second computing devices comprise residential voice over IP gateways.

16. (Original) The method of Claim 11 wherein said circuitry comprises a frequency oscillator.

17. (Original) The method of Claim 16 wherein said frequency oscillator comprises a numerically controlled oscillator.

18. (Cancelled)

19. (Previously Presented) A method of synchronizing a computing device in a packet switched telecommunication network comprising:

requesting an absolute time from a server using a Network Time Protocol (NTP);

receiving said absolute time; and

inputting an adjustment parameter into a frequency controlling hardware of a frequency oscillator of said computing device to adjust a phase of said frequency oscillator.

20. (Previously Presented) The method of Claim 19 wherein said computing device comprises a residential voice over IP gateway.

21. (Previously Presented) The method of Claim 19 further comprising storing and recalling said adjustment parameter into and from a memory of said computing device.

22. (Original) The method of Claim 21 wherein said storing occurs at a rate determined by a user.

23. (Original) The method of Claim 21 wherein said storing occurs at a rate determined by a variability of the adjustment parameter over time.

24. (Original) The method of Claim 21 wherein said recalling occurs after power cycling or power shut down.

25. (Previously Presented) The method of Claim 19 wherein said frequency oscillator comprises a numerically controlled oscillator.

26. (Previously Presented) A method of transmitting higher bandwidth voice band data between a first computing device and a second computing device comprising synchronizing said

first computing device to said second computing device by way of using a network time protocol (NTP) server, said synchronizing performed to improve signal to noise ratio of said voice band data received at said first computing device and said second computing device.

27. (Original) The method of Claim 26 wherein said higher bandwidth voice band data comprises V.90 or V.92.

28. (Previously Presented) A method of improving the signal to noise ratio of voice band data comprising synchronizing one or more computing devices to a network time protocol (NTP) server.

29. (Cancelled)

30. (Previously Presented) A method of synchronizing a transmitting computing device to a receiving computing device of a packet switched telecommunication network comprising:

requesting an absolute time from a network time protocol (NTP) server;

receiving said absolute time;

inputting an adjustment parameter into a frequency controlling hardware of said transmitting computing device or said receiving computing device;

storing into said adjustment parameter from a memory of said transmitting computing device or said receiving computing device; and

recalling said adjustment parameter from a memory of said transmitting computing device or said receiving computing device.

31. (Previously Presented) The method of Claim 30 wherein said storing occurs at a rate determined by a user.

32. (Previously Presented) The method of Claim 30 wherein said storing occurs at a rate determined by a variability of the adjustment parameter over time.

33. (Previously Presented) The method of Claim 30 wherein said recalling occurs after power cycling or power shut down.

34. (Previously Presented) A method of synchronizing a transmitting computing device to a receiving computing device of a packet switched telecommunication network comprising:

requesting an absolute time from a network time protocol (NTP) server;

receiving said absolute time; and

inputting an adjustment parameter into a frequency controlling hardware of said transmitting computing device or said receiving computing device, wherein said frequency controlling hardware comprises a numerically controlled oscillator; and

re-evaluating the rate of said requesting said absolute time from said network time protocol (NTP) server.

35. (Cancelled)

36. (Previously Presented) A method of synchronizing a transmitting computing device to a receiving computing device of a packet switched telecommunication network comprising:

requesting an absolute time from a network time protocol (NTP) server;

receiving said absolute time; and

inputting an adjustment parameter into a frequency controlling hardware of said transmitting computing device or said receiving computing device, said transmitting or receiving computing devices comprising residential voice over IP gateways; and

storing and recalling said adjustment parameter into and from a memory of said transmitting computing device or said receiving computing device.

37. (Previously Presented) The method of Claim 36 wherein said storing occurs at a rate determined by a user.

38. (Previously Presented) The method of Claim 36 wherein said storing occurs at a rate determined by a variability of the adjustment parameter over time.

39. (Previously Presented) The method of Claim 36 wherein said recalling occurs after power cycling or power shut down.

40. (Previously Presented) A system comprising:

a first computing device comprising:

a first processor; and

a first memory storing a first software, said first processor and said first memory used for running and executing said first software for first requesting a first absolute time from a network time protocol (NTP) server, said first computing device receiving said first absolute time in response to said first requesting; and wherein a second computing device executes a second software for second requesting a second absolute time from said NTP server, said second computing device receiving said second absolute time in response to said second requesting, resulting in synchronization of said first computing device to said second computing device, said synchronization reducing clock drift between said first computing device and said second computing device such that voice band data transmitted between said first computing device and said second computing device is received with a higher signal to noise ratio, said voice band data transmitted through a packet switched network, said NTP server executing a third software for generating said first and said second absolute times, wherein a first rate at which said first requesting is performed is varied based on a first synchronization accuracy of said first computing device and wherein a second rate at which said second requesting is

performed is varied based on a second synchronization accuracy of said second computing device.

41. (Previously Presented) The system of Claim 40 wherein said voice band data comprises fax data.

42. (Previously Presented) The system of Claim 40 wherein said voice band data comprises modem data.

43. (Previously Presented) The system of Claim 40 wherein said voice band data comprises voice.

44. (Previously Presented) A computing device for transmitting and receiving voice band data, said computing device comprising:

a memory for storing a software;

a processor for executing said software for synchronizing said computing device to a server using a Network Time Protocol (NTP); and

a frequency oscillator for receiving an adjustment parameter from said server for adjusting a phase of said frequency oscillator wherein a rate at which said receiving occurs is varied based on maintaining a particular synchronization accuracy.

45. (Currently Amended) The ~~system~~ computing device of Claim 44 wherein said voice band data comprises fax data.

46. (Currently Amended) The ~~system~~ computing device of Claim 44 wherein said voice band data comprises modem data.

47. (Currently Amended) The ~~system~~ computing device of Claim 44 wherein said voice band data comprises voice.

48. (New) A computing device comprising:

a memory for storing a software program;

a circuitry; and

a processor for executing said software program to perform, at least:

requesting absolute time from a server by said computing device, wherein said server uses a Network Time Protocol (NTP);

receiving said absolute time by said computing device; and

inputting an adjustment parameter derived from said absolute time into a circuitry of said computing device to synchronize said computing device, wherein a rate at which said requesting is performed is varied based on a particular synchronization accuracy desired at said computing device.

49. (New) The computing device of Claim 48 wherein said circuitry comprises a frequency oscillator.

50. (New) The computing device of Claim 49 wherein said frequency oscillator comprises a numerically controlled oscillator.

51. (New) A method of synchronizing a computing device in a packet switched telecommunication network comprising:

requesting an absolute time from a server using a Network Time Protocol (NTP);

receiving said absolute time;

inputting an adjustment parameter into a frequency controlling hardware of a frequency oscillator of said computing device to adjust a phase of said frequency oscillator; and

storing and recalling said adjustment parameter into and from a memory of said computing device.

52. (New) The method of Claim 51 wherein said computing device comprises a residential voice over IP gateway.

53. (New) The method of Claim 51 wherein said storing occurs at a rate determined by a user.

54. (New) The method of Claim 51 wherein said storing occurs at a rate determined by a variability of the adjustment parameter over time.

55. (New) The method of Claim 51 wherein said recalling occurs after power cycling or power shut down.

56. (New) The method of Claim 51 wherein said frequency oscillator comprises a numerically controlled oscillator.